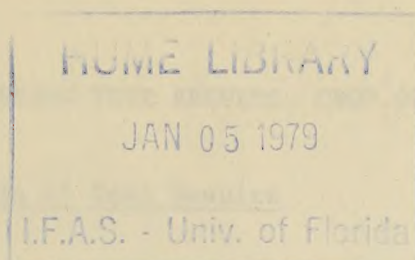
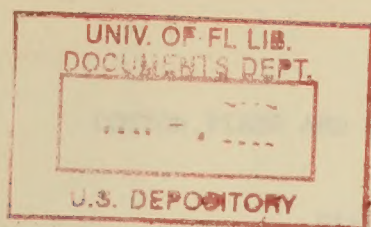


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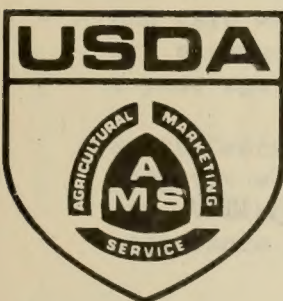
REPORT NO. 8



Cotton Fiber and Processing Test Results

CROP of

1978



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38122 December 15, 1978

REPORT NO. 8

These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season.^{1/} These reports are available on request from the Standards Section, Cotton Division, Agricultural Marketing Service, U.S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN. 38122

^{1/} Summary of Cotton Fiber and Processing Test Results, Crop of 1977, USDA, AMS, Cotton Division, August 1978.

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1978

Discussion of Test Results

Short staple cottons tested from the Southwest through December 8 are shorter and less uniform than a year ago, according to the Cotton Division, Agricultural Marketing Service, USDA. Cottons are stronger at zero gage, but weaker at 1/8" gage tests than last season. Both Shirley Analyzer nonlint content and picker and card waste are much higher. Yarns spun from these samples are weaker but have higher appearance grades. Yarn imperfections are lower. The spinning potential yarn number is lower.

Southeastern medium staple samples tested to date are longer, less uniform, finer and stronger than a year ago. Shirley Analyzer nonlint content is higher. Yarns spun from these samples are stronger, but have lower appearance grades. Yarn imperfections are lower. The spinning potential is higher.

South Central medium staple samples show fibers to be shorter, less uniform and stronger at zero gage strength tests than a year ago. Picker and card waste is higher. Yarns spun from these samples show weaker skein strength. Yarn imperfections are lower. The spinning potential is lower.

No additional medium staple lots were received from the Southwest during this period.

Medium staple samples tested from the west show fibers to be shorter, less uniform, coarser and weaker than last season at this time. Both Shirley Analyzer nonlint content and picker and card waste are higher than a year ago. Yarns spun from these samples are weaker but show slightly higher appearance grades. Imperfections are lower. The spinning potential is lower.

Average results for all medium staple cotton tested show fibers to be shorter, less uniform and stronger at zero gage tests than last season. Both Shirley Analyzer nonlint content and picker and card waste are higher than a year ago. Yarns spun from these samples are weaker, but show lower imperfection counts than last season. The spinning potential is lower.

Southeast long staple samples tested are slightly shorter, less uniform, finer and weaker at zero gage strength tests but stronger at 1/8" gage tests. Picker and card waste is higher than a year ago. Carded yarns spun from these samples are stronger with higher appearance grades. Yarn imperfections are lower than a year ago.

South Central long staple samples tested are longer, less uniform, finer and slightly weaker at zero gage tests but stronger at 1/8" gage tests than a year ago. Picker and card waste is higher. Yarns spun are stronger but have lower appearance grades. Imperfections are lower. The spinning potential is higher.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States
1/
through December 8, 1978

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results					
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.	
		2.5% span	50/2.5 unif.		Pct.	Rdg.			Mpsi	G/tex	Skein str.		Appearance
				Inches			Pct.	No.					
												No.	
Short Staple: Southwest	73	0.98	46	42	89	22	3.2	5.4	100	110	13	- 3/ 49	
	24	0.94	45	42	92	21	4.2	7.1	95	119	8 (17)	40	
Medium Staple: Southeast	34	1.08	46	48	86	22	3.2	6.1	96	94	20	- 50	
	34	1.10	45	45	87	23	3.5	6.1	108	92	15 (76)	58	
South Central	123	1.11	45	46	86	23	3.5	6.0	104	95	22	- 57	
	121	1.09	44	46	88	23	3.5	6.5	100	95	13 (54)	50	
Southwest	46	1.08	46	42	86	22	3.2	5.2	100	90	19	- 54	
	39	1.03	45	43	89	22	4.4	6.4	100	82	16 (80)	51	
West	62	1.12	46	43	95	26	2.5	5.2	120	86	21	- 69	
	36	1.08	45	45	94	25	2.6	5.6	117	88	18 (113)	64	
U.S. Average	265	1.10	46	45	88	23	3.2	5.8	106	92	21	- 58	
	230	1.08	45	45	89	23	3.5	6.3	104	91	15 (71)	54	
Significant dif- ference 2/		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3	

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through December 8, 1978
1/ (Continued)

Staple group, Area, and Crop year	Lots	Fiber Test Results						Processing Test Results									
		Length		Strength		SA Non- lint	P&C Waste	Comber Waste	Pct.	Pct.	Yarn Quality				SPY		
		Span	Unif	Mike	Zero						Strength	Appearance		Imprfctns			
					gage							1/8" gage	carded			combed	card
No.	In.	Pct.	Rdg.	Mpsi	G/tx	Pct.	Lbs.	Lbs.	Indx	Indx	No.	No.	No.				
22s Carded & Combed Yarn																	
Long Staple: Southeast	12	1.13	45	48	88	23	3.5	7.1	3/	-	99	-	102	-	18	-	58
	15	1.12	44	44	85	24	3.4	7.7	16.6	111	128	106	126	12	3	59	
South Central	3	1.16	45	45	92	24	4.3	7.2	-	106	-	97	-	24	-	63	
	3	1.18	43	42	91	26	4.3	8.7	17.4	110	133	93	123	22	6	66	
West	6	1.18	47	41	92	27	3.2	6.0	-	130	-	92	-	24	-	89	
	1	1.19	46	42	91	28	3.2	7.5	16.4	136	153	80	120	29	9	97	
Extra-Long Staple: West	3/																
	2	1.47	35	38	102	35	2.9	6.8	14.6	-	66	-	120	-	1	-	-
Significant Difference 2/	COMBED YARNS																
	AMERICAN PIMA																
	A R R A Y																
	4(22s)																
	4(22s) 2(50s)																
	0.02	2	0.2	2	1	0.5	0.5	0.5	0.5	5	5	2	2	2	2	3	3

1/ Based on a limited number of samples of modal quality
2/ Minimum differences considered to be significant for comparisons in this table.
3/ Data not available

Table 2 -- Cotton, American upland short staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns												
No	Grade		Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- lint		Color Raw Stock		P & C		Strength		Elongation		Appearance Index		Imprfct's Neps/M Yards		Spin. Potentia		
	Name & Code	32s		2.5% span	Unif		Rdg	Mpsi		G/tex	Pct	Pct	No	No	Gra	Yel	Waste	8s or 74 tx	22sor 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22sor 27 tx		8s or 74 tx	22sor 27 tx
SOUTHWEST AREA																										
NORTHWEST TEXAS																										
LAMESA																										
1	SLM	LT SP	42	29	0.90		46		39	89	19	6.6	4.8	3	5	7.6	226	70	6.5	5.5	110	110	29	1/8	1/10	25
SUDAN																										
1	SLM	LT SP	42	32	0.98		44		41	92	23	5.7	6.6	3	4	8.0	308	106	7.4	6.4	120	120	28	4	11	52
VERNON																										
1	SLM	PLUS	40	33	1.03		45		42	94	23	5.4	3.7	1	3	6.2	303	105	7.0	6.0	130	130	18	4	7	53
OKLAHOMA																										
TEMPLE																										
1	SLM	PLUS	40	32	1.01		42		37	85	22	6.3	4.5	1	3	6.3	284	98	7.7	6.5	120	120	52	0	9	53
WILLOW																										
1	SLM		41	31	0.95		45		50	86	21	7.0	5.1	2	4	7.1	273	91	7.0	6.0	120	130	33	0	11	43

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns										
No	Grade Name & Code	Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint		Color Raw Stock		P & C Waste		Strength		Elongation		Appearance Index		Imperf'ns Neeps/M Yards		Spin. Potent- tial
				2.5% span	Unif.		Zero Gage	1/8" Gage		Pct	In	Pct	Rdg	Mpsi	G/tex	Pct	Yel	No	Gra	Pct	Lbs	22s or 27 tx	50s or 12 tx	
SOUTHEAST AREA																								
ALABAMA																								
HARPERSVILLE																								
3 SLM		41	34	1.11	46	45	86	22	5.5	3.7	2	3	6.5		90 PERCENT	105	35	5.8	4.4	90	70	16	13	1/ (172) 56
GEORGIA																								
BOSTWICK																								
3 SLM LT SP		42	34	1.02	44	44	85	23	6.4	4.3	3	4	7.0		100 PERCENT	99	32	5.7	4.0	80	60	19	13	(258) 47
OGLETHORPE																								
1 SLM		41	35	1.09	43	44	87	23	5.5	4.3	2	3	5.3		75 PERCENT	99	33	5.6	4.3	80	60	25	17	(362) 50
NORTH CAROLINA																								
LAURINBURG																								
2 LM		51	36	1.10	46	40	86	24	6.0	7.5	2	2	8.7		100 PERCENT	117	42	6.3	5.1	80	60	32	22	(300) 67
3 LM		51	35	1.06	46	43	90	24	5.8	6.9	2	2	7.7			114	40	6.1	4.6	80	70	23	19	(314) 54
SHELBY																								
1 SLM		41	36	1.13	45	46	88	24	6.2	3.7	1	3	5.9		100 PERCENT	111	40	6.0	4.8	90	60	17	17	(256) 65
SOUTH CAROLINA																								
ST CHARLES																								
3 SLM		41	35	1.12	46	47	85	24	5.8	3.5	1	3	6.1		95 PERCENT	101	35	6.2	4.8	80	60	17	13	(274) 60
SOUTH CENTRAL AREA																								
ARKANSAS																								
ALTHEIMER																								
3 SLM		41	35	1.11	44	42	88	24	7.0	4.0	2	2	6.8		95 PERCENT	99	32	6.0	4.4	90	70	18	14	(194) 51
COTTON PLANT																								
2 SLM		41	35	1.06	46	52	88	23	6.2	3.3	2	3	5.6		98 PERCENT	97	31	5.3	4.1	110	80	16	13	(134) 50
3 SLM		41	35	1.07	46	50	86	25	6.5	2.9	2	3	5.6			94	29	5.7	3.9	100	70	11	9	(198) 45
DERMOTT																								
3 SLM		41	34	1.06	45	48	87	22	5.9	2.9	2	3	7.2		80 PERCENT	97	28	5.7	3.7	100	70	12	9	(156) 49
MARION																								
3 SLM LT SP		42	35	1.13	43	37	82	23	7.3	4.8	2	3	6.9		100 PERCENT	103	35	7.0	5.2	70	60	24	15	(326) 61
TRUMANN																								
3 SLM		41	35	1.08	43	44	89	23	5.8	3.4	2	2	6.6		100 PERCENT	97	32	6.1	4.6	90	70	25	18	(368) 47

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.

Table 3--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Staple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8" Gage	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imperfect's Neps/M Yards		Spin. Potential	
				2.5% span	Unif.		Zero Gage	1/8" Gage			Pct	In		Pct	Raw	Yel	Lbs	Lbs	Pct	Pct	22s or 50s or 27 tx		50s or 27 tx
SOUTH CENTRAL AREA Continued																							
LOUISIANA																							
ALEXANDRIA																							
3	SLM	41	34	1.09	45	51	82	22	6.0	2.6	2	3	5.9	100 PERCENT	89	28	5.4	3.9	120	80	11	28	1/ 9 (218) 52
LAKE PROVIDENCE																							
3	LM PLUS	50	35	1.09	42	44	88	23	5.1	3.3	1	2	6.4	100 PERCENT	96	32	5.6	4.2	80	60	24	(78)	15 (350) 48
MONROE																							
3	SLM	41	35	1.12	47	46	84	24	8.0	3.1	2	2	6.1	100 PERCENT	111	39	6.9	5.0	80	60	19	(58)	14 (240) 57
OAK RIDGE																							
3	SLM	41	35	1.06	43	49	93	23	5.0	2.4	1	3	4.8	100 PERCENT	103	34	5.5	4.3	110	80	11	(20)	9 (174) 54
PIONEER																							
2	SLM	41	33	1.00	45	45	88	23	6.1	3.0	2	3	6.0	100 PERCENT	82	27	5.4	4.0	110	70	14	(34)	18 (176) 34
SHREVEPORT																							
3	SLM LT SP	42	34	1.07	43	44	84	22	7.2	3.8	3	4	7.8	100 PERCENT	86	26	5.4	3.7	100	70	17	(38)	11 (368) 43
SHREVEPORT																							
3	SLM LT SP	42	34	1.10	42	42	87	23	6.1	3.6	3	3	6.4	80 PERCENT	97	32	6.0	4.7	80	60	23	(60)	21 (306) 52
SICILY ISLAND																							
3	SLM LT SP	42	35	1.08	46	53	87	22	5.5	3.7	3	4	6.7	100 PERCENT	90	30	5.3	3.9	90	70	17	(88)	13 (198) 44
MISSISSIPPI																							
GLENORA																							
2	SLM	41	34	1.07	43	46	90	22	5.0	5.2	1	2	5.8	100 PERCENT	90	28	5.2	4.0	110	70	13	(44)	13 (174) 37
3	SLM	41	34	1.09	43	48	92	23	5.4	4.1	1	2	5.9	100 PERCENT	97	31	5.5	4.5	100	70	12	(58)	11 (146) 42
GREENVILLE																							
3	LM	51	34	1.13	46	48	91	25	5.4	5.1	3	3	7.8	100 PERCENT	114	39	6.3	4.8	120	80	17	(46)	11 (152) 50
LULA																							
3	LM	51	35	1.12	44	41	87	23	6.2	6.7	3	2	8.6	100 PERCENT	96	32	6.0	4.6	80	60	24	(72)	15 (270) 55
LYON																							
3	LM	51	34	1.07	44	46	85	22	5.9	6.7	2	3	9.1	100 PERCENT	92	29	5.9	4.0	90	60	18	(76)	16 (242) 48
MORGAN CITY																							
3	LM	51	35	1.12	44	46	85	24	6.7	5.0	3	3	6.9	100 PERCENT	104	36	6.0	4.4	90	70	17	(68)	15 (348) 57
OKOLONA																							
3	SLM	41	34	1.06	42	41	85	22	6.2	3.9	1	2	6.9	100 PERCENT	94	31	5.8	4.1	90	60	18	(40)	13 (198) 48

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.
2/ Reduced from 41 because of grass.

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade Name & Code	Stple	32s In	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imperfect's Neps/M Yards		Spin. Potent-ial	
				2.5% span	Pct		Rdg	Mpsi			G/tex	Pct		Gra	Yel	Lbs	Pct	Lbs	Pct	22s or 27 tx	50s or 12 tx		22s or 27 tx
SOUTH CENTRAL AREA Continued																							
SARDIS																							
3 SLM	41 35	1.11	44	47	90	23	5.4	3.7	1	2	7.2	101	33	5.4	4.1	90	70	19	19	19	19	19	19
TRI88ETT																							
3 LM	51 35	1.07	41	39	94	20	4.3	4.5	4	2	7.7	79	25	4.6	3.2	80	60	19	19	19	19	19	19
TUNICA																							
3 SLM	41 35	1.12	44	40	85	22	6.0	4.2	2	3	7.5	99	35	5.8	4.4	90	60	15	15	15	15	15	15
VALLEY PARK																							
3 SLM	41 35	1.14	44	42	81	23	7.0	3.8	1	2	6.3	104	37	6.4	4.8	80	60	21	21	21	21	21	21
TENNESSEE																							
3 SLM LT SP	42 34	1.06	44	46	82	21	6.8	4.2	2	3	6.1	93	27	6.3	4.1	90	60	21	21	21	21	21	21
WEST AREA																							
ARIZONA																							
GILA BEND	41 34	1.14	44	48	90	25	5.6	3.7	1	2	5.6	105	36	5.8	4.5	90	70	18	18	18	18	18	18
ROLL																							
2 MID	31 35	1.11	45	49	88	26	5.9	3.1	0	3	5.4	105	37	5.7	4.7	70	60	22	22	22	22	22	22
CALIFORNIA																							
ARVIN	41 36	1.14	48	44	96	29	5.9	2.6	1	3	5.1	134	47	6.5	5.1	90	90	15	15	15	15	15	15
ARVIN																							
2 MID	31 36	1.13	47	47	94	27	4.8	2.6	1	3	5.6	117	44	5.8	4.7	90	70	21	21	21	21	21	21
BAKERSFIELD																							
2 MID	31 35	1.09	45	43	98	25	5.3	1.9	1	3	5.3	119	43	5.8	4.5	80	60	19	19	19	19	19	19
BAKERSFIELD																							
2 SLM	41 36	1.11	46	43	99	26	5.1	2.7	1	2	5.4	120	44	5.8	4.5	80	60	23	23	23	23	23	23
BUTTONWILLOW																							
2 MID	31 36	1.11	46	46	100	27	5.0	2.1	1	3	5.1	128	46	5.7	4.7	90	60	18	18	18	18	18	18

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Name & Code	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imperfect'ns Neps/M Yards		Spin. Potent- ial	
				2.5% span	Unif.		Zero Gage	1/8" Gage			Pct	Pct		Gra	Yel	Lbs	Lbs	Pct	Pct	22s or 27 tx	50s or 12 tx	22a or 27 tx	50s or 12 tx
WEST continued																							
FIREBAUGH																							
1	MID	31	36	1.13	49	46	98	26	ACALA SJ-2	5.9	2.2	1	3	5.1	127	46	5.8	4.9	90	70	16	1/ (96) 13 (284) 76	
FIVE POINTS																							
1	SLM	41	36	1.15	46	39	97	25	ACALA SJ-2	6.3	3.5	1	3	7.3	126	45	6.5	5.0	70	60	23	(142) 16 (302) 78	
HELM																							
1	SLM PLUS	40	36	1.14	47	44	99	26	ACALA SJ-2	6.0	2.3	1	3	6.3	130	47	6.0	5.0	70	60	26	(134) 21 (302) 76	
SHAFTER																							
2	SLM	41	35	1.10	46	42	96	27	ACALA SJ-2	5.3	2.7	1	3	5.7	126	45	6.3	4.8	80	60	23	(138) 15 (308) 71	
TIPTON																							
2	MID	31	35	1.07	44	37	97	27	ACALA SJ-4	5.6	3.2	1	3	5.8	123	46	6.0	4.9	70	60	34	(160) 19 (338) 78	
TULARE																							
2	SLM	41	36	1.12	45	44	97	28	ACALA SJ-4	5.4	2.9	1	3	5.5	133	48	6.5	4.9	80	60	27	(198) 19 (402) 77	
WESTMORLAND																							
1	MID	31	34	1.09	45	45	93	24	DELTAPINE 61	5.5	2.9	1	3	5.8	106	35	5.9	4.3	100	60	21	(64) 15 (322) 54	

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.

Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns												
No	Grade	Name & Code	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Comber Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Potent-ial				
				2.5% span	Unif.		Zero Gage	1/8" Gage			G/tex	Pct		No	No	22s or 27 tx	Lbs	Pct	Pct	22s or 27 tx	No		No	22s or 27 tx	No	No
SOUTHEAST AREA																										
ALABAMA																										
HOLTVILLE																										
41	35	1.09	45	45	85	24	6.7	2.8	2	3	7.3	103	34	5.6	4.7	110	90	13	11	1/59						
3	SLM									*	16.2	122	43	6.4	5.2	130	110	4	14	2	(102)					
GEORGIA																										
MADISON																										
41	35	1.12	43	44	86	24	5.6	6.0	2	3	8.1	105	36	5.8	4.5	110	80	15	12	134	58					
3	SLM									*	17.4	126	45	6.4	5.0	130	110	6	12	3	(111)					
SOUTH CENTRAL AREA																										
MISSISSIPPI																										
LAKE CORMORANT																										
41	36	1.18	42	43	91	25	5.3	4.6	2	2	8.5	105	37	5.6	4.4	100	70	22	30	13	230	66				
3	SLM									*	17.9	130	45	6.0	4.8	120	100	8	50	4	242					

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument
* Comber Waste and Combed Yarn Data

Table 5 --Cotton, American Pima extra long staple: Quality characteristics by production areas, crop of 1978.

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Combed Yarns																															
				Array Length		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Comber Waste	Strength		Elongation		Appearance Index		Imprfect'ns																								
							Zero Gage	1/8" Gage			Gra	Yel			50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx																							
				No	Grade	Stple	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No																				
																						32s																							
WEST AREA																																													
ARIZONA																																													
1		3	44	1.41	35	40	105	PIMA S-5		6.8	2.9	3	5	6.7	14.9	67	36	99 PERCENT	5.5	4.8	120	120	1	1/ (22) 1/ (118)																					
WEST TEXAS																																													
1		4	46	1.53	36	37	100	PIMA S-5		8.0	2.9	4	5	7.0	14.3	65	34	100 PERCENT	5.8	5.2	120	110	1	(28) 20(2)																					

1/ Parentheses indicate the neps per 1000 yards of yarn as measured by the Uster instrument.